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UREZANI NALAZI ŠANDALJE II

CARVED FINDS FROM ŠANDALJA II

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UDK 903.27(497.571Šandalja)“632“
Pregledni znanstveni rad
Primljeno: 12. 4. 2018.
Odobreno: 15. 6. 2018.

UDC 903.27(497.571Šandalja)“632“
Scientific review
Received: April 12, 2018
Approved: June 15, 2018

Geometrijski motivi česti su u razdoblju gornjeg paleolitika. Mogu se pronaći urezani na predmetima te naslikani ili urezani na zidovima špilja. Široko su geografski rasprostranjeni, a u Hrvatskoj ih poznajemo s dva lokaliteta: Vlakna na Dugom otoku i iz Šandalje II u Istri. U radu je obrađen materijal iz gornjopaleolitičkih slojeva Šandalje II gdje je pronađeno osam urezanih predmeta. Prema načinu izrade, predmeti iz Šandalje II mogu se podijeliti na jednostavnije i kompleksnije. Postoje različite interpretacije za urezane nalaze, a u radu je ponuđena mogućnost da se radi o predmetima sa simboličnim značenjem. U posljednje vrijeme, uloga geometrijskih motiva privlači pozornost arheologa te postoji više teorija koje objašnjavaju njihovu funkciju. Među prvima je objašnjenje ponudio Alexander Marshack (1972) za kojega su urezi na predmetima dokaz da su zajednice gornjeg paleolitika pratile lunarne promjene te da su urezi dokaz notacijskih sustava. J. D. Lewis-Williams i T. Dowson (1988) ponudili su objašnjenje u vidu entoptičkog fenomena, a njihova teorija može objasniti široku rasprostranjenost geometrijskih motiva. U novijim istraživanjima G. von Petzinger (2016) predložila je da se radi o početku grafičke komunikacije.

KLJUČNE RIJEČI: urezani nalazi, Šandalja II, geometrijski motivi, simbolično značenje, entoptički fenomen, grafička komunikacija

Geometric motifs were a frequent occurrence in the Upper Paleolithic period. They are widespread geographically, and in Croatia we encounter such motifs at two sites: Vlakno on Dugi Otok and Šandalja II in Istria. This paper offers analysis of the material from the Upper Paleolithic layers at Šandalja II where eight carved artefacts have been found. Based on the way they were made, the items from Šandalja II fall into either simpler or more complex categories. There are various interpretations for the carved finds, and this paper poses the possibility that the items have a symbolic meaning. Recently, geometric motifs have been garnering a lot of attention from archaeologists, resulting in multiple theories about the possible function of the motifs. One of the first explanations was offered by Alexander Marshack (1972) who considered the carvings on the respective finds to provide evidence that Upper Paleolithic communities tracked lunar changes and that the carved notches indicate notational systems. J. D. Lewis-Williams and T. Dowson (1988) offered their explanation in terms of entoptic phenomenon, and their theory explains the extensive prevalence of geometric motifs. In more recent investigations, G. von Petzinger (2016) suggested that the motifs represent the first steps of an early graphic communication.

KEY WORDS: carved finds, Šandalja II, geometric motifs, symbolic meaning, entoptic phenomenon, graphic communication

1. UVOD

Uradu će biti obrađeno sedam urezanih koštanih nalaza i jedan urezani komadić sileksa¹ s gornjopaleolitičkog lokaliteta Šandalja II,² koja se nalazi u južnoj Istri, blizu grada Pule. Ovaj lokalitet sačinjen je od pukotina u krednim vapnencima ispunjenim sedimentima na istočnoj strani brda sv. Danijel te naziv Šandalja obuhvaća više pećina i šupljina (Karavanić et al. 2013, 10; Malez 1979, 255). Još je u antičko vrijeme ovaj lokalitet bio poznat zbog kamenoloma koji je bio korišten za izgradnju Vespazijanove arene u Puli (Malez 1975, 183). Šandalja je značajna i zbog velikog broja gornjopaleolitičkih nalaza kamenih rukotvorina koje nedvojbeno upućuju na važnost ovog lokaliteta. Također, u epigravetijenskom sloju B/s pronađeni su i ljudski ostaci četiriju osoba (Janković et al. 2011, 186–188; 2012, 120).

Prema izradi nalazi se mogu podijeliti na jednostavnije i kompleksnije što nikako ne označava njihovu funkciju kao jednostavniju ili kompleksniju. U kategoriju jednostavnih nalaza svrstani su predmeti s kratkim, jednostavnim urezanim crtama. U kategoriji kompleksnije izrađenih predmeta nalaze se oni s finijim, preciznije izvedenim urezima ili oni sastavljeni od različitih motiva (T.1).

Kako je već naglašeno, sedam predmeta dolazi iz epigravetijenskih slojeva C/d, B/C, B/s i kompleksa B, a samo jedan nalaz potječe iz orinjasijenskog sloja E. Kompleksi C i B podijeljeni su na tri sloja – donji, srednji i gornji (oznake /d, /s, /g). Sloj C/d nataložen je prije približno 20 000 radiokarbonskih godina odnosno prije zadnjeg glacijalnog maksimuma (Karavanić 1999, 21). Treba naglasiti kako Brajković i Miracle ovaj sloj smještaju u razdoblje kasnog epigravetijena dok ga ranija istraživanja na temelju apsolutnih datuma i litičkog asortimana pozicioniraju u rani epigravetijen (Brajković i Miracle 2013 prema Karavanić et al. 2013, 18). Granica između kompleksa C i B iznosi 13 070 +/- 230 godina prije sadašnjosti (Obelić et al. 1994 prema Miracle 1995, 92). Treba istaknuti i novi rezultat radiokarbonskog datiranja ljudskih ostataka iz sloja B/s koji iznosi 11025 +/- 60 (KIA-23489) godina prije sadašnjosti (Richards et al. 2015, 5). Slojevi C/s, C/g te prijelaz na B kompleks imaju starost od 13 000 godina, a B kompleks vjerojatno je malo stariji od 10 000 godina te se tako može zaključiti kako su slojevi od C/s do B/g

1. INTRODUCTION

The paper will treat seven carved bone finds and a carved piece of silex¹ from the Upper Paleolithic site Šandalja II² in southern Istria, located close to the city of Pula. The site is comprised of fissures in chalky limestone filled with sediment on the eastern side of the St Daniel Hill, and the name Šandalja covers a number of caves and crevices (Karavanić et al. 2013, 10; Malez 1979, 255). Back in antiquity, the site was a well-known quarry used for the construction of Vespasian's Arena in Pula (Malez 1975, 183). Šandalja is important due to the large number of Upper Paleolithic finds of handmade stone artefacts which undoubtedly indicate the importance of the site. Moreover, human remains of four persons have been found in the Epigravettian layer B/s (Janković et al. 2011, 186–188; 2012, 120).

Based on the visible craftsmanship, the finds can be described as either simpler or more complex artefacts, which in no way refers to the complexity of their function. The category of simpler finds includes items with short, simple carved lines. The category of more complex finds includes those with finer, more precise carvings or those with various motifs (T.1).

As mentioned earlier, seven items come from the C/d, B/C, B/s Epigravettian layers and B complex, and only one find is from the E Aurignacian layer. The C and B complexes are divided into three layers – lower, middle and upper (designated as /d, /s and /g). The C/d layer was sedimented approximately 20,000 radiocarbon years ago, i.e., prior to the last glacial maximum (Karavanić 1999, 21). It should be mentioned that Brajković and Miracle place this layer in the Late Epigravettian Period, whereas earlier investigations based on absolute dates and the lithic assortment placed it in the Early Epigravettian Period (Brajković and Miracle 2013 according to Karavanić et al. 2013, 18). The borderline between the C and B complexes is 13070 +/- 230 years BP (Obelić et al. 1994 according to Miracle 1995, 92). The new results of radiocarbon dating of the human remains from the B/s layer should also be considered, yielding a value of 11025 +/- 60 (KIA-23489) years BP (Richards et al. 2015, 5). The C/s, C/g layers and the transition to the B complex are dated to 13,000 years BP, whereas B complex is probably somewhat older than 10,000 years, leading to the conclusion that layers C/s

¹ Predmeti se čuvaju u HAZU-u u Zavodu za paleontologiju i geologiju kvartara. Fotografije artefakata izradio je Mateo Petrović, laborant i tehničar u HAZU-u pri Zavodu za paleontologiju i geologiju kvartara.

² U tekstu će se Šandalja II navoditi kao Šandalja.

¹ The items are kept at the Institute for Quaternary Paleontology and Geology of the Croatian Academy of Sciences and Arts. Photographs of the artefacts were taken by Mateo Petrović, laboratory assistant and technician at the Institute for Quaternary Paleontology and Geology of the Croatian Academy of Sciences and Arts.

² The paper refers to Šandalja II as simply Šandalja.

nastali između 13 600 i 10 700 godina prije sadašnjosti (Karavanić 1999, 21; Miracle 1995, 92).

U radu će detaljnije biti prikazani navedeni predmeti i moguće interpretacije za ovu vrstu nalaza te njihova moguća uloga u simboličnom ponašanju prapovijesnih zajednica. Treba naglasiti kako su ovi predmeti već bili objavljeni, ali ne i detaljnije obrađeni u ranijim publikacijama (Karavanić 1999; Karavanić 2003; Karavanić 2013; Malez 1979) te je ovo njihova najdetaljnija obrada, interpretacija i pozicioniranje u širi kontekst.

2. KOMPLEKSNI NALAZI

U skupinu kompleksnih urezanih nalaza spadaju četiri predmeta. Koštana pločica s urezanim linijama te kratkim crticama na jednoj liniji (sl. 1) iz sloja C/d datirana je u razdoblje epigravetijena (Karavanić et al. 2013, sl. 17, 2; Malez 1987, 17). Kost je uglačana te se na njoj razaznaju četiri velike vertikalne linije, a na prvoj liniji vidljivo je 26 kratkih urezanih crtica. Predmet je dužine 4,2 centimetra, a širina mu u najširem dijelu iznosi 2,1 centimetar.

U kompleksu B, koji se datira u razdoblje kasnog epigravetijena, pronađena je koštana pločica s urezanim mrežastim motivom na obje strane (Karavanić et al. 2013, sl. 19, 8; Malez 1987, 17) (sl. 2). Radi lakše analize predmeta strane su nazvane "a" i "b". Na strani "a" vidljivo je četiri do pet vertikalnih linija od kojih je jedna prominentnije izražena. Vertikalne linije bile su urezane prije horizontalnih koje su i pliće. Na strani "b" ovog artefakta nalazi se mnogo gušća mreža ureza koja se prostire dijagonalno po čitavoj površini predmeta. Koštana pločica na najdužem dijelu dugačka je 5,7 centimetara, a na najširem dijelu široka je 4,5 centimetara.

Koštani ulomak s urezanim linijama na jednoj strani pronađen je u sloju B/s (Karavanić et al. 2013, sl. 18, 7) (sl. 3). Ulomak po sebi ima ureze koji podsjećaju na motive "X" i "Y" te ravne crte. Nalaz je dugačak 8,6 centimetara, a na najširem dijelu je širok 3,5 centimetara.

U istom sloju kao i koštani ulomak s urezanim linijama pronađen je komadić sileksa s obradom na jednom rubu te urezanim mrežastim motivom na okorini (Malez 1987, 17, sl. 22: 10; Karavanić i sur. 2013, sl. 9: 40). Radi se o iznimno malom predmetu, a mrežasti motiv na njegovoj okorini je vrlo pravilnog oblika te ravnih linija (sl. 4). Ovaj komadić sileksa na sebi ima tri horizontalne te sedam vertikalnih linija. Ovaj nalaz dugačak je 3,4 centimetra, a širok 1,1 centimetar.

to B/g originated between 13,600 and 10,700 years BP (Karavanić 1999, 21; Miracle 1995, 92).

This paper presents the respective items in more detail and provides a possible interpretation of the finds as well as their possible role in the symbolic behavior of the prehistoric community. It should be pointed out that the items have already been published but have not been treated in greater detail in the earlier publications (Karavanić 1999; Karavanić 2003; Karavanić 2013; Malez 1979), meaning that this is a more detailed and wider treatise, interpretation and positioning in wider context.

2. COMPLEX FINDS

The category of complex carved finds includes four items. A bone plaque with carved lines and short strokes on a single line (Fig. 1) from the C/d layer dated to the Epigravettian (Karavanić et al. 2013, Fig. 17, 2; Malez 1987, 17). The bone has been polished and four large vertical lines are identifiable on it, along with 26 short carved strokes on the first line. The item is 4.2 cm long and its greatest width is 2.1 cm.

One of the items discovered in the B complex, dated to the Late Epigravettian, is a bone plaque with a carved crosshatch motif on both sides (Karavanić et al. 2013, Fig. 19, 8; Malez 1987, 17) (Fig. 2). To analyze the item more easily, the sides are designated as "a" and "b". Noticeable on side "a" are four to five vertical lines out of which one is more prominent. The vertical lines were carved before the horizontal ones which are also shallower. The "b" side of this artefact shows a denser crosshatch carving which extends diagonally along the entire surface of the item. The bone plaque is 5.7 cm long along its longest section, and is 4.5 cm wide at its greatest width.

The bone fragment with carved lines on one side was found in the B/s layer (Karavanić et al. 2013, Fig. 18, 7) (Fig. 3). The fragment itself has incisions which resemble an "X" and "Y" motifs as well as straight lines. The find is 8.6 cm long and is 3.5 cm wide at its greatest width.

From the same layer as the bone fragment with carved lines comes a small piece of silex retouched along one edge with a carved crosshatch motif on the cortex (Malez 1987, 17, Fig. 22: 10; Karavanić et al. 2013, Fig. 9: 40). It is an exceptionally small item, and the crosshatch motif on its cortex has a very regular shape and straight lines (Fig. 4). This piece of silex has three horizontal and seven vertical lines on it. The find is 3.4 cm long and 1.1 cm wide.



Slika 1. Koštana pločica s urezanim linijama i kratkim crticama na jednoj liniji; sloj C/d.

Fig. 1 Bone plaque with incision lines and short strokes on a single line; C/d layer.



Slika 2. Koštana pločica s urezanim mrežastim motivom s obje strane. Lijeva slika je strana "a", a desna, strana "b"; kompleks B.

Fig. 2 Bone plaque with crosshatch incision motif on both sides. Left side is side "a", and the right side is "b", B complex.



Slika 3. Koštani ulomak s urezanim linijama na jednoj strani; B/s.

Fig. 3 Bone fragment with incision lines on one side; B/s layer.



Slika 4. Komadić sileksa s obradom na jednom rubu te urezanim mrežastim motivom na okorini; sloj B/s.

Fig. 4 Piece of silex retouched along one edge and a crosshatch motif on the cortex; B/s layer.

3. JEDNOSTAVNI NALAZI

Artefakt sa signaturom Ša II-E-75 pripisuje se razdoblju orinjasijena (sloj E) (Karavanić 2003, 592) (sl. 5). Važno je naglasiti kako je ovo jedini takav poznati nalaz iz orinjasijenskih slojeva. Ipak, s obzirom da su slični primjerci s urezima pronađeni u epigravetijenskim slojevima, postoji mogućnost da se radi o miješanju

3. SIMPLE FINDS

The artefact with label Ša II-E-75 is attributed to the Aurignacian (E layer) (Karavanić 2003, 592) (Fig. 5). It should be emphasized that this is the only such known find from the Aurignacian layers. However, given that similar finds with incisions have been found in the Epigravettian layers, it may be the result of the mixing of

slojeva. Radi se o dijelu slomljene kosti (možda šiljka) koji na sebi ima tri urezane strane. Radi lakše analize, strane nalaza nazvane su "a", "b" i "c". Na "a" strani ovog predmeta nalazi se između 25 i 28 urezanih crtica, na "b" strani vidljiva je samo jedna mala skupina ureza koji izgledom odudaraju od ureza vidljivih na "a" i "b" strani. Na strani "c" nalazi se između 15 i 18 urezanih crtica. Dužina ovog predmeta iznosi 6,2 centimetara, a širina na najširem dijelu 1,6 centimetara.

U stratigrafskoj jedinici B/C, koja se datira u razdoblje epigravetijena, pronađen je koštani probojac s urezanim usporednim linijama (Karavanić et al. 2013, sl. 17, 10; Malez 1979: T. XXIV, 13) (sl. 6). Artefakt ima sedam široko urezanih linija koje se izgledom razlikuju od ostalih nalaza koji na sebi imaju ureze. Dužina artefakta iznosi 7,9 centimetara, a njegova širina na najširem dijelu je 1,2 centimetra.

layers. It involves part of a broken bone (perhaps a point) which has three carved sides on it. For easier analysis, the sides are designated as "a", "b" and "c". On the "a" side of this item, there are between 25 and 28 carved lines, whereas noticeable on "b" side is only one small group of incisions which are different in appearance from the incisions visible on the "a" and "c" sides. The "c" side contains between 15 and 18 carved lines. The length of this item is 6.2 cm, and its maximum width is 1.6 cm.

The B/C stratigraphic unit, dated to the Epigravettian, revealed a bone awl with carved parallel lines (Karavanić et al. 2013, Fig. 17, 10; Malez 1979: T. XXIV, 13) (Fig. 6). The artefact has seven wide carved lines which differ in appearance from incisions seen on other finds. The length of the artefact is 7.9 cm, and its maximum width is 1.2 cm.

Another well-known find from the B complex is a polished bone point with a broken base which was



Slika 5. Dio slomljene kosti s urezima (odozgo prema dolje: strana "a", "b" i "c"); sloj E.

Fig. 5 Part of a broken bone with incisions (view from above: side "a", "b" and "c"); E layer.



Slika 6. Koštani probojac s urezanim linijama i kratkim crticama na jednoj liniji; sloj B/C.

Fig. 6 Bone awl with incision lines and short strokes on one line; B/C layer.



Slika 7. Uglacani koštani šiljak slomljene baze ukrašen urezanim crticama (odozgo prema dolje: strane "a", "b" i "c"; kompleks B.

Fig. 7 Polished bone point with a broken base decorated with carved strokes (view from above: side "a", "b" and "c"; B complex).



Slika 8. Koštani probojac slomljena vrha, ukrašen dvama redovima usporednih urezanih crtica; sloj B/s.

Fig. 8 Bone awl with a broken tip, decorated with two rows of adjacent incision strokes, B/s layer.

Iz kompleksa B također je poznat i nalaz uglačanog koštanog šiljka slomljene baze koji je ukrašen urezanim crticama (Karavanić i sur. 2013, sl. 19, 5; Malez 1987, 17, sl. 22, 2) (sl. 7). Nizovi urezanih crtica nalaze se na tri strane ovog nalaza, a radi lakše analize te strane imenovane su kao "a", "b" i "c". Na strani "a" urezi su djelomično prekriveni crvenom bojom, ali vrlo vjerojatno se radi o ostacima zemlje. Strana "a" ima 12 urezanih crtica, strana "b" između 12 i 16, a strana "c" 13 ili 14. Dužina ovog nalaza iznosi 15,4 centimetra, a njegova širina 1,9 centimetara.

U sloju B/s (kasni epigravetijen) pronađen je koštani probijak slomljena vrha ukrašen dvama redovima usporedno urezanih crtica (Malez 1987: 17; Karavanić i sur. 2013: sl. 18: 4) (sl. 8). Nalaz nije uglačan za razliku od šiljka s urezima iz kompleksa B. Na donjoj strani nalazi se ukupno 8 urezanih crtica, a na gornjoj 13 ili 14. Nalaz je dugačak 10,9 centimetara, a na najširem dijelu širok 2 centimetra.

4. RASPRAVA

Urezani predmeti, kakvi su poznati i iz epigravetijenskih slojeva Šandalje, nisu isključivo vezani uz gornjopaleolitičke lokalitete Europe. Navedenu skupinu nalaza pronalazimo na širokom geografskom području kroz dugo razdoblje. Premda sve ove nalaze nije moguće povezati sa Šandaljom, potrebno ih je spomenuti radi šireg poznavanja konteksta.

U Africi su pronađeni urezani artefakti već tijekom ranog srednjeg kamenog doba (EMSA) (Twin Rivers Kopje, Wonderwerk, Blind River Mouth, Bushman Rock Shelter) te u većem broju tijekom srednjeg kamenog doba (MSA) (Pinnacle Point, Klasies River Mouth, Hollow Rock Shelter, Border Cave, Wonderwerk, Apollo 11, Palmenhorst/Rossing, Klein Kliphuis Shelter, Diepkloof Cave, Howieson's Poort, Blombos, Sibudu Cave, Mkomanzi River) i kasnog kamenog doba (LSA) (Border Cave, White Paintings Shelter, Matupi Cave, Ishango) (Bednarik 2013, 11-18).

U Aziji, iz razdoblja srednjeg paleolitika, poznati su urezani korteksi s dva nalazišta - Qafzeha i Quinetre (Goren-Inbar 1990; Hovers et al. 1997).

U Europi, najstariji nalazi ove vrste datirani su u razdoblje srednjeg paleolitika. Na Krimu, u Ukrajini pronađena je urezana kost na lokalitetu Zaskalnaya VI (Kolosovskaya) koja je datirana u razdoblje od 38 000 do 43 000 cal godina prije sadašnjosti (Majkić et al. 2017). Nešto drugačiji nalaz dolazi s područja Gibraltara, nalazišta Gorham Cave u kojem je na stijeni pronađen urezani motiv mreže datiran na više od 39 000 cal godina prije sadašnjosti (Rodríguez-Vidal et al. 2014, 13301).

decorated with incision lines (Karavanić et al. 2013, Fig. 19, 5; Malez 1987, 17, Fig. 22, 2) (Fig. 7). A series of incision lines are found on three sides of this item, and to make the analysis easier they are referred to as "a", "b" and "c". The incisions on the "a" side are partially covered with red color, and it is most likely due to soil remains. Side "a" has 12 incision lines, side "b" between 12 and 16 and side "c" 13 or 14. The length of this find is 15.4 cm, and it is 1.9 cm wide.

The B/s layer (Late Epigravettian) revealed a bone awl broken at the top and decorated with two rows of parallel incision lines (Malez 1987: 17; Karavanić et al. 2013: Fig. 18: 4) (Fig. 8). Unlike the point with incisions from the B complex, this find is not polished. Located on the lower side is a total of 8 incisions, and 13 or 14 on the upper side. The find is 10.9 cm long and is 2 cm wide at its widest section.

4. DISCUSSION

The carved items, which have also been identified in the Epigravettian layers of Šandalja, are not only related to the Upper Paleolithic sites in Europe. The mentioned group of finds is found across a wide geographical area through a longer time frame. Although all of these finds cannot be linked to Šandalja, they deserve mentioning to gain a better understanding of the context.

In Africa, carved artefacts have been found originating even from the Early Middle Stone Age (EMSA) (Twin Rivers Kopje, Wonderwerk, Blind River Mouth, Bushman Rock Shelter) and in greater numbers from the Middle Stone Age (MSA) (Pinnacle Point, Klasies River Mouth, Hollow Rock Shelter, Border Cave, Wonderwerk, Apollo 11, Palmenhorst/Rossing, Klein Kliphuis Shelter, Diepkloof Cave, Howieson's Poort, Blombos, Sibudu Cave, Mkomanzi River) and from the Later Stone Age (LSA) Border Cave, White Paintings Shelter, Matupi Cave, Ishango) (Bednarik 2013, 11-18).

In Asia, there are two well-known carved cortices found at two sites from the Middle Paleolithic - Qafzeh and Quinetre (Goren-Inbar 1990; Hovers et al. 1997).

In Europe, the oldest finds of this type date to the Middle Paleolithic. In the Crimea, Ukraine, a carved bone was found on the site of Zaskalnaya VI (Kolosovskaya) which dates to the period of 38,000 to 43,000 cal BP (Majkić et al. 2017). A somewhat different find comes from the Gibraltar region, at the site of Gorham Cave where a carved crosshatch motif was found on a rock and dates back to more than 39,000 cal BP (Rodríguez-Vidal et al. 2014, 13301).

In Europe, due to an extensive number of researches, numerous portable carved finds have been unearthed at

U Europi je zbog odličnog stanja istraženosti velik broj portabilnih urezanih nalaza poznat s gornjopaleolitičkih francuskih nalazišta poput Abri Pataud (Barge-Mahieu et al. 1991, 214, fig. 1:6; 254, fig.1: 4), Grotte des Cottés (Allain et al. 1993 prema Breuil 1906, 101: fig. 2), La Madaleine (Delporte et al. 1988, 4, fig. 2:3), Petit-Puyrousseau, Chausseura (Delporte et al. 1988, 2, fig.1: 2-3), Abri Blancharda (Didon 1911; Tartar et al. 2014) te Saint-Germaine-la-Riviera (Vanhaeren i d'Errico 2003; von Petzinger 2016).

Tijekom gornjeg paleolitika, u razdoblju epigravetijena, na području Italije poznati su urezani nalazi s lokaliteta Riparo Tagliente (Guerreschi 2005, 179-181), Riparo Dalmeri (Dalmeri et al. 2005, 144), Grotte Romanelli (Martini 2005, 163,171) te Gavorrana (Mussi 2001, 267). U Sloveniji je u orinjasijenskim slojevima Potočke zijalke pronađeno 25 koštanih artefakata s jednostavno izvedenim urezima koji su po svojoj morfologiji vrlo slični onima iz Šandalje (Brodar 1935) (sl. 5, 6, 7).

U Hrvatskoj, na nalazištu Vindija, pronađena je penisna kost medvjeda s urezanim linijama koja je prvotno datirana u razdoblje gornjeg paleolitika (Malez 1988), ali postoji mogućnost, na temelju signature i zapisa, da pripada ranijem sloju koji se pripisuje musterijenu (Karavanić i Smith 1998, 233). Na Dugom otoku, na nalazištu Vlakno pronađeni su urezani nalazi koji su najbliža paralela nalazima iz Šandalje, a datiraju se također u razdoblje epigravetijena (Vujević i Parica 2010).

Motivi i urezi koji se pojavljuju na prijenosnoj umjetnosti pronađeni su i kao dijelovi stijenske umjetnosti, vrlo često kao gravure. Treba naglasiti i kako materijali na kojima su načinjeni urezi variraju. Uz ureze na litičkom i koštanom materijalu poznati su urezi i na okeru, kao oni iz Blombosa (d'Errico et al. 2003) ili na ljuskama nojevih jaja iz Diepkloofa (Texier et al. 2010). Isti ili vrlo slični urezi često se nalaze na različitim materijalima te to može upućivati kako je prapovijesni čovjek birao dostupne ili prikladne materijale za izrađivanje ureza.

Vrlo važno je naglasiti i kako su interpretacije ove vrste nalaza različite, ali i da široko rasprostriranje tradicije urezivanja ili čak pojavljivanje sličnih motiva u vremenski vrlo udaljenim razdobljima ne označava njihovo istovjetno značenje u različitim društvima ili njihovu nepromjenjivost kroz različita razdoblja. Ukoliko bi se u pojedinim slučajevima hipotetski radilo o svojevrsnoj tradiciji određenih motiva, potrebno je naglasiti kako ni jedna tradicija po svojoj prirodi nije nepromjenjiva, već se prilagođava vremenu i potrebama društva te je na taj način u konstantnoj mijeni i može "izgubiti" svoj prvotni značaj (Hobsbaum 2011, 12). Drugo vrlo važno

the Upper Paleolithic French localities, such as Abri Pataud (Barge-Mahieu et al. 1991, 214, fig. 1:6; 254, fig.1: 4), Grotte des Cottés (Allain et al. 1993 according to Breuil 1906, 101: Fig. 2), La Madaleine (Delporte et al. 1988, 4, Fig. 2:3), Petit-Puyrousseau, Chausseur (Delporte et al. 1988, 2, Fig. 1: 2-3), Abri Blanchard (Didon 1911; Tartar et al. 2014) and Saint-Germaine-la-Rivière (Vanhaeren and d'Errico 2003; von Petzinger 2016).

In the territory of Italy, carved finds from the Upper Paleolithic, specifically the Epigravettian period, have been found at sites of Riparo Tagliente (Guerreschi 2005, 179-181), Riparo Dalmeri (Dalmeri et al. 2005, 144), Grotta Romanelli (Martini 2005, 163,171) and Gavorrano (Mussi 2001, 267). In Slovenia, the Aurignacian layers of Potočka zijalka have revealed 25 bone artefacts with simple incisions with a morphology very similar to those from Šandalja (Brodar 1935) (Fig. 5, 6, 7).

In Croatia, the site of Vindija has revealed the penis bone of a bear with incision lines originally dated to the Upper Paleolithic period (Malez 1988), but there is also a possibility, based on the label and record, that it belonged to an earlier layer attributed to the Mousterian (Karavanić and Smith 1998, 233). On the island of Dugi otok, the site of Vlakno has revealed carved finds most similar to the ones from Šandalja, and also dating to the Epigravettian period (Vujević and Parica 2010).

The motifs and incisions appearing on portable art were also found on parts of rock art, very often in the form of engravings. It should be noted that the material onto which the incisions were applied was diverse. Besides the incisions on lithic and bone material, incisions on ochre also existed, such as those from Blombos (d'Errico et al. 2003) or on emu egg shells from Diepkloof (Texier et al. 2010). The same or similar incisions are often found on various materials, which may indicate that the prehistoric man chose available and appropriate materials for making incisions.

It is very important to emphasize that the interpretations of this type of find are various, and that the wide prevalence of the carving tradition or even appearance of similar motifs in mutually very distant time periods does not indicate their identical meaning in various communities or their immutability through various periods of time. In case that certain motifs hypothetically showed signs of a unique tradition, it should be noted that no single tradition by its nature is immutable but adapts to time and the requirements of a community. Subsequently, this continuous transformation may cause it to "lose" its original significance (Hobsbaum 2011, 12).

Another very important issue regarding carved items in the discussion is the possibility of the symbolic nature of

pitanje za raspravu o urezanim predmetima odnosi se na mogućnost simbolične prirode ove vrste nalaza te jesu li oni izravan i neposredan dokaz simboličnog ponašanja prapovijesnih zajednica. Definicija o simboličnom ponašanju ima mnogo (pogledaj: Anderson 2012; d'Errico et al. 2003; Henshilwood i Dubreuil 2011; Henshilwood i Marean 2003; McBrearty i Brooks 2001) te vrlo često one ističu simbolično ponašanje kao jedan od glavnih dokaza modernog ponašanja. Definicija Henshilwooda i Dubreuil (2011, 368) tako ističe manifestaciju simboličnog ponašanja u društvu na način da je „simbolično posredovana kultura ona u kojoj individue razumiju kako su artefakti prožeti značenjem te da su ta značenja konstruirana i ovisna o kolektivno dijeljenom značenju“.³ Texier et al. (2010, 6180) također navode reprodukciju i ponavljanje urezanih motiva kao važnu komponentu njihove simbolične prirode, a tome u prilog idu i nova istraživanja stijenskog slikarstva u kantabrijskom području koja ukazuju na unificiranost orinjasijenske kulture na temelju reprodukcije istovjetnih grafičkih prikaza (Ruiz-Redondo et al. 2017, 75). Ipak, smatramo kako takva repetitivnost ne mora nužno ukazivati i na nepromijenjenost ili istovjetnost značenja istih motiva u različitim regijama ili tijekom dužeg razdoblja. Ipak, treba naglasiti i mogućnost kako su neki od nastalih ureza na kostima možda produkt postdeponijalnih procesa ili tragovi rezanja (Chase 1995; Chase i Dibble 1987).

Urezani motivi možda se mogu promatrati kao simboli čija su se značenja prenosila i bila poznata članovima zajednica. Također, sustavi znakova i simbola za svaku kulturu su specifični te odgovaraju posebno utvrđenim konvencijama koje postoje unutar neke zajednice (Deacon 1997, 70). Genevieve von Petzinger (2016) navodi 32 geometrijska znaka koji se pojavljuju tijekom gornjeg paleolitika⁴ kao dio parijetalne ili portabilne umjetnosti. Njihovu široku rasprostranjenost možemo promatrati kao posljedicu migracija zajednica te kontakta među zajednicama gdje su znakovi imali posredničku ulogu te ih se možda može promatrati kao početak grafičke komunikacije (von Petzinger 2016). Urezani nalazi iz Šandalje imaju motiv mreže (*crosshatch*) (sl. 2, 4) i X (*cruciform*) te Y (*Y-sign*) i motiv linija (sl. 3). Odgovor na pitanje o širokoj pojavnosti ovih znakova možemo potražiti i u zajedničkoj ishodišnoj točki njihovog nastanka te promjeni njihovog značenja migracijama zajednica i promjenom kulture i tradicije. Treba

this find and whether it is direct and immediate evidence of the symbolic behavior of the prehistoric communities. There are many definitions of symbolic behavior (cf. Anderson 2012; d'Errico et al. 2003; Henshilwood and Dubreuil 2011; Henshilwood and Marean 2003; McBrearty and Brooks 2001) and very often they emphasize symbolic behavior as the main evidence of modern behavior. Henshilwood and Dubreuil (2011, 368) define a symbolically mediated culture as “one in which individuals understand that artifacts are imbued with meaning and that these meanings are construed and depend on collectively shared beliefs”. Texier et al. (2010, 6180) also cite reproduction and recurrence of carved motifs as a special component of their symbolic nature, which is supported by newer investigations into rock paintings in the Cantabria region that indicate a uniformity of the Aurignacian culture based on the reproduction of identical graphic representations (Ruiz-Redondo et al. 2017, 75). Nonetheless, we deem such repetitiveness need not necessarily indicate immutability or identical meaning of the same motifs in various regions or during longer periods of time. However, emphasis should also be placed on the possibility that some of the found incisions on bones may be a product of subsequent depositional processes or traces of incisions (Chase 1995; Chase and Dibble 1987).

The carved motifs can be viewed as symbols whose meaning was transferred to community members and was well known to them. Moreover, the systems of signs and symbols for any culture are specific and conform to specially determined conventions that exist within a particular community (Deacon 1997, 70). Genevieve von Petzinger (2016) cites 32 geometric signs that appeared during the Upper Paleolithic Period³ as being part of the parietal or portable arts. Their wide prevalence can be observed as the consequence of the migration of peoples and contact among communities where signs had an intermediation role, and which can perhaps be viewed as the start of graphic communication (von Petzinger 2016). The carved finds from Šandalja have a crosshatch motif (Fig. 2, 4) and X (cruciform) as well as Y (Y-sign) and lines motif (Fig. 3). The explanation for the wide prevalence of these signs can also be sought in common starting points relating to their origin and changes in their meaning brought on by the migration of communities as well as changes in culture and tradition. It may very well be possible that the identical signs originated and were used independently, whereas their wide prevalence was

³ Prijevod M. Č. P.

⁴ Neki motivi pojavljuju se i ranije – mrežasti urez iz Gorham Cavea, Qafzeha ili Quneitre (Goren-Inbar 1990; Hovers et al. 1997; Rodríguez-Vidal et al. 2014).

³ Some motifs appeared even earlier – engraved crosshatch motif from Gorham Cave, Qafzeh or Quneitra (Goren-Inbar 1990; Hovers et al. 1997; Rodríguez-Vidal et al. 2014).

spomenuti i mogućnost da su istovjetni znakovi nastali te bili korišteni neovisno, a njihovu široku pojavnost J. D. Lewis Williams i T. Dowson (1988) objasnili su pomoću entoptičkog fenomena na primjeru zajednica San i Coso koje prakticiraju šamanizam. S obzirom kako je entoptički fenomen vezan za ljudski živčani sustav,⁵ pretpostavka je kako svi ljudi mogu doživjeti navedene vizualne senzacije u promijenjenim stanjima svijesti uzrokovanim dugim boravkom u izoliranim, mračnim mjestima, kroničnom deprivacijom sna, šizofrenijom, migrenama, hiperventilacijom te ritmičkim pokretima (Klüver 1942; Horowitz 1965, 512-518; Sacks 1970; Siegel i Jarvik 1975 prema Lewis-Williams, Dowson 1988, 203). Ukupno je izdvojeno šest entoptičkih oblika – mreža, setovi paralelnih linija, točke, cik-cak linije, lančaničice (*catenary lines*) i filigranski motiv na tankim meandristim linijama (Lewis-Williams i Dowson 1988, 203). Ukoliko koristimo etnografske podatke zajednica kod kojih je zabilježen šamanizam, možemo primijetiti kako oni bilježe entoptičke simbole ravnomjerno dok u gornjem paleolitu Europe nalazimo samo tri nalazišta koja imaju sve entoptičke oblike na jednom mjestu. Moguće je svakako da su zajednice birale samo neke entoptičke oblike koje su kasnije reproducirale, ali je to nemoguće dokazati (von Petzinger 2016). U Šandalji je pronađen motiv mreže (sl. 2, 4), ali ni jedan drugi motiv koji bi se mogao okarakterizirati kao entoptički oblik. To naravno ne znači se ne radi o entoptičkom fenomenu, ali je to gotovo nemoguće potvrditi.

Treba spomenuti i starije interpretacije koje su stijenjsku umjetnost objašnjavale kao magiju lova ili plodnosti. Navedene interpretacije danas su većinom napuštene, ali su doživjele svoju preinaku kroz šamanizam. Teorija šamanizma na koju se oslanja i interpretacija entoptičkog fenomena (Lewis-Williams i Dowson 1988; Lewis-Williams 2002) jedna je od najzastupljenijih, ali je svakako ograničavajuća s obzirom kako ju je gotovo nemoguće dokazati te se velikim dijelom oslanja na etnografske paralele koje, iako korisne, nisu u potpunosti pouzdan alat za determinaciju gornjopaleolitičkih pojava. Također, postoji određen broj urezanih nalaza, manje stilski atraktivnih od parijetalne umjetnosti, a radi se o koštanim artefaktima koji na sebi vrlo često imaju jednostavne urezane linije ili su sastavljene od nekoliko urezanih motiva, a kakve nalazimo i u Šandalji (sl. 5, 6, 7, 8). Alexander Marshack (1972) na primjeru urezanih

explained by J. D. Lewis Williams and T. Dowson (1988) with the help of the entoptic phenomenon using the example of the San and Coso community which practiced shamanism. Given that the entoptic phenomenon relates to the human nervous system⁴, the presumption is that all people can experience the mentioned visual sensations in altered states of consciousness caused by long sojourns in isolation, dark places, chronic deprivation of sleep, schizophrenia, migraines, hyperventilation and rhythmic movement (Klüver 1942; Horowitz 1965, 512-518; Sacks 1970; Siegel and Jarvik 1975 according to Lewis-Williams, Dowson 1988, 203). A total of six entoptic forms have been chosen – crosshatch, sets of parallel lines, points, zig-zag lines, catenary lines and filigree motifs on thin meander lines (Lewis-Williams and Dowson 1988, 203). If we use ethnographic information on communities where shamanism is evident, we notice that they equally record entoptic symbols while during the Upper Paleolithic in Europe we find only three localities that harbor all entoptic shapes in a single place. It is possible that the communities only chose certain entoptic shapes and then reproduced them, however this claim cannot be proven (von Petzinger 2016). Besides a crosshatch motif (Fig. 2, 4) that was found at Šandalja, there were no other motifs that could be characterized as having an entoptic shape found at the site. This certainly does not mean that there was no entoptic phenomenon involved, but it is almost impossible to prove such a claim. Also worth mentioning are the older interpretations which explained rock art as magic relating to hunting or fertility. Today, these interpretations have been mostly abandoned, but nonetheless have undergone a modification due to shamanism. The theory of shamanism upon which depends the interpretation of the entoptic phenomenon (Lewis-Williams and Dowson 1988; Lewis-Williams 2002) is one of the most popular and also certainly limiting given that it is almost impossible to prove, while mostly relying on ethnographic parallels which, though useful, are not completely reliable tools for determining Upper Paleolithic events. Also, there are a certain number of carved finds, less stylistically attractive than parietal art, involving bone artefacts which carry simple incision lines or have several incision motifs, such as those found in Šandalja (Fig. 5, 6, 7, 8). Alexander Marshack (1972), uses the examples of carved finds from Ishang, Blanchard, Abri Lartet, the horn from Le Placard, Barma Grande and numerous other examples, to offer

⁵ Ovaj fenomen obuhvaća dvije kategorije oblika – fosfene (*phosphenes*), koje se mogu inducirati pritiskanjem oka te su entoftalmične (nastaju unutar oka) i konstante (*form constants*) koje nastaju u optičkom sustavu. Entoptički fenomen razlikuje se od halucinacija s obzirom kako halucinacije nisu vezane za strukturu optičkog sustava (Lewis-Williams i Dowson 1988, 202).

⁴ This phenomenon covers two categories – phosphenes, which can be induced by pressing the eye and which have an entoptalmic (occurring within the eye) and constant form, which occur in the optical system. The entoptic phenomenon differs from hallucination in that hallucinations are not tied to the structure of the optical system (Lewis-Williams and Dowson 1988, 202).

nalaza iz Ishanga, Blancharda, Abri Larteta, roga iz Le Placarda, Barma Grande i mnogobrojnih drugih, ponudio je, danas često osporavanu teoriju (d'Errico 1989) o lunarnim kalendarima i notacijskim sustavima. Jesu li urezane linije mogle predstavljati sustav praćenja lunarnih faza ili su bile korištene kao notacijski sustavi, ostaje otvoreno pitanje koje se može i metodološki provjeriti (d'Errico 1989) na temelju morfologije ureza koja može ukazati jesu li linije načinjene u jednom trenutku ili su nastale kroz duže razdoblje. Ipak, bez obzira na kritike ove interpretacije (d'Errico 1989), novija istraživanja koja se bave korelacijom između kognitivnih sposobnosti i materijalne kulture naglašavaju kako su kalendari omogućili uspješno praćenje vremena – iznimno važne vještine lovcima i sakupljačima prilikom lova te iskorištavanja prirodnih resursa (De Smedt i De Cruz 2013, 863). Urezi tako postaju zapisi, materijalna manifestacija dijela života prapovijesnih ljudi.

Od urezanih nalaza iz Šandalje posebno je zanimljiva koštana pločica s urezanim linijama i kratkim crtama na jednoj liniji (sl. 1). Interpretacija za ovu vrstu nalaza nije jednostavna s obzirom da se radi o slomljenom komadiću kosti. Ipak, precizno izvedene crtice na jednoj liniji i uglačanost kosti sugeriraju da je izradi bila posvećena velika pažnja. Karavanić et al. (2013, 48) predložili su da se možda radi o shematiziranom prikazu peraje. A. Marshack (1979, 272) uočio je kako su gravure riba često shematizirane, a u gornjem paleolitu ih pronalazimo u frankokantabrijskom području, ali i na istočnijim nalazištima poput Předmostíja u Moravskoj i Timonovke u Rusiji.

S obzirom na geografsku raširenost i dugo vremensko razdoblje u kojem se urezi pojavljuju, smatramo kako se ne može isključivo iznijeti samo jedna od ponuđenih interpretacija u radu (entoptički fenomen, notacijski sustavi ili početak grafičke komunikacije) kao objašnjenje za urezane nalaze.

Na kraju, s obzirom na urezane nalaze iz Šandalje, treba naglasiti i problem upotrebe termina paleolitička “umjetnost” koji se često koristi za opisivanje različitih paleolitičkih pojava. Pojam umjetnosti vrlo je širok i teško da postoji univerzalna definicija koja bi u potpunosti bila odgovarajuća svim razdobljima. Munson (2011, 2–3) tako ističe kako je pojam umjetnosti zapadnoeuropska konstrukcija u koju su svrstana sva djela rađena radi estetskog užitka. Time zapadnoeuropski konstrukt umjetnosti ograničava djela drugih zajednica, a tako i onih prapovijesnih. Ne uključuje sva druga moguća značenja – sakralna i profana. S druge strane, Schaafsma (2013, 4–5) naglašava kako umjetnost i danas ima ulogu prenošenja informacija, stvaranja simbola. Umjetnost dakle nema

a nowadays frequently disputed theory (d'Errico 1989) of lunar calendars and notational systems. Whether the incision lines represented a system for tracking lunar phases or were used as notational systems, remains an open question that can be methodologically analyzed (d'Errico 1989) by viewing the morphology of the incisions, indicating if the lines were applied at the same time or over a longer period of time. However, regardless of criticisms against this interpretation (d'Errico 1989), more recent studies of a correlation between cognitive abilities and material culture emphasize that calendars led to successful tracking of time – an exceptionally important skill for hunters and gatherers during hunting sessions, as well as the utilization of natural resources (De Smedt i De Cruz 2013, 863). The incisions therefore serve as records, a material manifestation of certain aspects of the life of prehistoric people.

Among the carved finds from Šandalja, there is also a particularly interesting bone plaque with incision lines and short strokes on a single line (Fig. 1). The interpretation of this kind of find is not simple given that it involves a small broken piece of bone. Nonetheless, the precisely executed strokes on a single line and polished bone suggest that great attention was given to its crafting. Karavanić et al. (2013, 48) proposed that it is perhaps a schematic representation of a fin. A. Marshack (1979, 272) noticed that engravings of fish are often schematized, and in the Upper Paleolithic we find them in the Franco-Cantabrian region, as well as in eastern localities such as Předmostí in Moravia and Timonovka in Russia.

Given the geographic prevalence and the long time period over which the carvings appeared, it is our opinion that choosing just one single interpretation among those offered in this paper (entoptic phenomenon, notational system or start of graphic communication) cannot be sufficient for explaining the carved finds.

Finally, when considering the carved finds from Šandalja, the issue of using the term paleolithic “art” often used for describing various paleolithic events should be addressed. The term art is very general, and it is hardly possible that there is a universal definition which is completely suitable for all periods. Hence, Munson (2011, 2–3) points out that the term art is a Western European construct which includes all works made for aesthetical pleasure. Consequently, the works of other communities, including those from prehistoric times are limited by this construct. It fails to include all other possible meanings – sacral and profane. On the other hand, Schaafsma (2013, 4–5) points out that art continues today to have a role in transmitting information, creating

nužno samo ulogu da estetski zadovolji pojedince, već je moćan alat komunikacije. Ukoliko gornjopaleolitičku umjetnost promatramo kao složen sustav simbola koji su u tadašnjim zajednicama imali svoja značenja te su služili da obilježe priče, mitove i vjerovanja, onda umjetnost bez isključivo estetske uloge i dalje može biti adekvatan pojam za opis gornjopaleolitičkih umjetničkih djela. Stijenska umjetnost nije nužno povezana isključivo sa slikarijama životinja. Geometrijski motivi ili simboli, kakve nalazimo urezane i u Šandalji, iznimno se često mogu naći pored stijenske umjetnosti koja ih upravo zbog svoje iznimne pojave stavlja u drugi plan prilikom različitih interpretacija (von Petzinger 2016). Pitanje je treba li ove geometrijske motive, koji se pojavljuju i na urezanim nalazima Šandalje, svrstavati u istu kategoriju kao slikarije i općenito ih nazivati umjetnošću, ali kao što je već naglašeno – umjetnost koja prenosi informacije i stvara simbole, a nije nužno samo estetske prirode može biti odgovarajući pojam u koji možemo svrstati i urezane geometrijske motive kakvi se pojavljuju i u Šandalji (Bradley 1997, 4; Schaafsma 2013, 4-5).

5. ZAKLJUČAK

Urezani nalazi iz epigravetijenskih slojeva Šandalje uklapaju se u gornjopaleolitički skup takve vrste nalaza te ne predstavljaju neočekivanu pojavu. Ipak, u Hrvatskoj uz nalaze iz Šandalje i Vlakna, nisu poznati takvi artefakti iz razdoblja gornjeg paleolitika, što naravno ne implicira da ih u budućnosti neće biti više. Njihovo značenje ostaje nerazjašnjeno, ali s obzirom na velik broj istovjetnih ili vrlo sličnih nalaza ove vrste na području Europe te svijeta, urezane nalaze iz Šandalje možemo možda promatrati kao dio simbolične prirode prapovijesnog čovjeka, ali ne treba isključiti mogućnost kako je određen broj takvih nalaza mogao imati isključivo dekorativnu ili funkcionalnu ulogu.

U radu je ponuđeno nekoliko teorija koje objašnjavaju široko rasprostiranje urezanih motiva od kojih se neki pojavljuju i u Šandalji. Tako teorija koja se koristi entoptičkim fenomenom vrlo vješto objašnjava široku pojavnost ovih motiva pomoću inherentno istovjetne biologije ljudske vrste, ali i dalje je vrlo teško dokazati prisutnost navedenog fenomena na nekom skupu nalaza.

Skupina koštanih nalaza s urezanim linijama iz Šandalje (sl. 5, 6, 7, 8) možda bi se mogla interpretirati kao alat za notaciju. Međutim, moguće je kako su neki od ureza na predmetima zapravo bili funkcionalne prirode. Primjerice na uglačanom šiljku iz kompleksa B koji je ukrašen crticama s tri strane (sl. 7), linije se protežu do iste točke te je moguće zamisliti kako je šiljak služio kao alat za uglavljanje.

Therefore, the role of art is not merely to satisfy the aesthetic needs of an individual, but to serve as a powerful communication tool as well. If Upper Paleolithic art is viewed as a complex system of symbols which in prehistoric communities had a particular meaning and served to commemorate stories, myths and beliefs, then art without an exclusive aesthetic role may possibly continue to be an adequate term to describe Upper Paleolithic art works. Furthermore, rock art does not necessarily refer solely to the paintings of animals. Geometric motifs or symbols, like the ones found carved in Šandalja, are frequently seen alongside rock art whose exquisite appearance leaves them in a less favorable position in various interpretations (von Petzinger 2016). The question is whether these geometric motifs, together with the ones found on carved finds in Šandalja, can be included in the same category as paintings and generally be described as art, but as it has already been pointed out – art that conveys information and creates symbols, does not necessarily only have an aesthetic nature, and can be a suitable term for classifying carved geometric motifs including the ones from Šandalja (Bradley 1997, 4; Schaafsma 2013, 4-5).

5. CONCLUSION

The carved finds from the Epigravettian layers at Šandalja fit into the Upper Paleolithic group of this type of finds and are not uncommon. However, such artefacts from the Upper Paleolithic, besides the finds from Šandalja and Vlakno, are unknown in Croatia. However, that does not imply that there will be no further finds of this kind in the future. Their significance is yet to be explained but given the large number of identical or very similar finds of this kind in Europe and the world, the carved finds from Šandalja can be viewed as part of the symbolic nature of the prehistoric man, and the possibility that a number of such finds may have a solely decorative or functional role should not be ruled out.

This paper offers a number of theories which explain the wide prevalence of the carved motifs, some of which have also appeared in Šandalja. Hence, the theory that relies on entoptic phenomenon very skillfully explains the wide prevalence of such motifs using the inherent and identical biology of human kind, but proving the presence of the mentioned phenomenon using a particular group of finds continues to be a difficult task.

The group of bone finds with incision lines from Šandalja (Fig. 5, 6, 7, 8) can perhaps be interpreted as notational tools. However, it may be that some of the incisions on the items were, in fact, of a functional nature. For instance, the lines on the polished point from

Urezani predmet iz Šandalje koji bi se možda mogao pripisati figuralnoj umjetnosti (sl. 1) zbog svoje necjelovitosti je kompleksan za interpretaciju. Koštana pločica nalikuje peraji ribe, a motiv ribe čest je u gornjem paleolitu frankokantabrijskog područja, ali i istočnih nalazišta, poput Timonovke i Předmostíja (Marshack 1979).

Navedena skupina nalaza iz Šandalje istovremena je s nalazima iz Vlakna. S epigravetijenskih lokaliteta Italije također su poznati urezani predmeti, a neki od njih nose motiv mreže kao i nalazi iz Šandalje (sl. 2, 4). Postoje tri mogućnosti – navedeni motiv služio je kao simbol u komunikaciji između ovih zajednica, nastao je i postojao neovisno u svakoj zajednici zasebno ili njegova pojava svjedoči o migraciji zajednica. Također, pojava urezanih nalaza u Šandalji istovremena je s pojavom prve keramike u Vela Spili (Farbstein et al. 2012) i to se možda može protumačiti kao svojevrsan simbolični zalet na ovom području u razdoblju epigravetijena. Svakako, daljnjim istraživanjima istočne jadranske obale upotpunit će se slika o simboličnom ponašanju zajednica gornjeg paleolitika.

Također, treba naglasiti važnost provođenja mikroskopskih i makroskopskih analiza na urezanim nalazima kao na ovima iz Šandalje radi upotpunjavanja slike ove vrste nalaza u Hrvatskoj u razdoblju paleolitika.

the B complex decorated with strokes on three sides (Fig. 7) extend to the same point and it is therefore possible to envisage that the spike was used as a wedging tool.

The carved item from Šandalja which perhaps could be attributed to figurative arts (Fig. 1) is difficult to interpret since it has not been entirely preserved. The bone plaque resembles a fish fin, and the fish motif is frequent in the Upper Paleolithic of the Franco-Cantabrian region, and also the more eastern sites, such as Timonovka and Předmostí (Marshack 1979).

The mentioned group of finds from Šandalja comes from the same period as the finds from Vlakno. Carved artifacts, some carrying the crosshatch motif like the finds from Šandalja, have also been found at Epigravettian sites in Italy (Fig. 2, 4). There are three possible explanations – the motif either served as a symbol in communication between these communities, it was created and existed independently in each community, or its appearance testifies to the migration of communities. Moreover, the occurrence of carved finds in Šandalja is concurrent with the appearance of the first ceramics in Vela Spila (Farbstein et al. 2012), which may be interpreted as a unique flourishing of symbolism in this area during the Epigravettian period. Surely, further investigations of the eastern Adriatic coastline will supplement current insights into the symbolic behavior of the Upper Paleolithic community.

Implementation of microscopic and macroscopic analysis of carved finds like the ones found at Šandalja should provide a better insight into this type of find in Croatia in the Paleolithic period.

Jednostavni nalazi	Kompleksni nalazi	Sloj	Slika
Dio slomljene kosti s urezima, signatura: Šandalja II-E-75		E	5
	Koštana pločica s urezanim linijama te kratkim crticama na jednoj liniji, signatura: Ša C/d 1990	C/d	1
Koštani probojac s urezanim usporednim linijama		B/C	6
	Koštana pločica s urezanim mrežastim motivom na obje strane	Kompleks B	2
Uglačani koštani šiljak slomljene baze ukrašen urezanim crticama, signatura: Š 195 B		Kompleks B	7
Koštani probojac slomljena vrha ukrašen dvama redovima usporedno urezanih crtica		B/s	8
	Koštani ulomak s urezanim linijama na jednoj strani, signatura: B/s	B/s	3
	Komadić sileksa s obradbom na jednom rubu i mrežastim motivom na okorini, signatura: B/s 530k	B/s	4
Simple finds	Complex finds	Layer	Figure
Part of a broken bone with incisions, label: Šandalja II-E-75		E	5
	Bone plaque with incision lines and short strokes on a single line, label: Ša C/d 1990	C/d	1
Bone awl with incisions parallel lines		B/C	6
	Bone plaque with carved crosshatch motifs on both sides	B complex	2
Polished bone point with a broken base decorated with incision lines, label: Š 195 B		B complex	7
Bone awl with a broken tip decorated with two rows of parallel incision strokes		B/s	8
	Bone fragment with incision lines on one side, label: B/s	B/s	3
	Piece of silex crafted along one edge and crosshatch motif on the cortex; label: B/s 530k	B/s	4

Tablica 1. Urezani nalazi Šandalje II.
Table 1. Carved finds from Šandalja II.

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